



Work Instruction (WI)

DIRECTIVE NO. 270-WI-4520.2.1I
EFFECTIVE DATE: March 8, 2016
EXPIRATION DATE: March 8, 2021

APPROVED BY Signature: Original Signed By
NAME: Naomi Manadier
TITLE: Acting Chief, Information and Logistics
Management Division

COMPLIANCE IS MANDATORY

Responsible Office: 270/Information and Logistics Management Division

Title: Receiving Project Parts

PREFACE

P.1 PURPOSE

This procedure describes the process for performing and documenting receipt and inspection of electrical, electronic, electromechanical (EEE) parts and mechanical hardware.

P.2 APPLICABILITY

This procedure applies to all electrical, electronic, electromechanical (EEE) parts and mechanical hardware under the control of the Code 273, Supply and Equipment Management Branch used in scientific and ground support material and equipment for space flight projects and ground support systems that are covered under the scope of the GSFC MS Policy. Receiving of these products shall be managed by the Code 273, Supply and Equipment Management Branch and supported by the Project Parts Section of the Code 279 logistics services contractor.

P.3 REFERENCES

- a. 270-WI-5340.2.1, Control of Non-Conforming Project Parts
- b. 270-WI-6400.1.4, Packaging and Marking of Project Parts
- c. 300-PG-8730.6.1 GSFC Electrostatic Discharge (ESD) Control Plan
- d. 500-PG-4520.2.1, Electrical, Electronic and Electromechanical (EEE) Counterfeit Parts Avoidance Plan (CPAP)
- e. GPR 4520.2, Receiving Inspection Test
- f. GPR 4520.1, Counterfeit Parts Avoidance Plan
- g. GPR 5340.2, Documentation and Control of Process Non-conformances and Customer Complaints
- h. GPR 5340.4, Problem Reporting and Problem Failure Reporting
- i. GSFC Form 20-2, Receiving Inspection & Test Form (RITF)
- j. GSFC Form 4-33, Non-conformance Tag
- k. NPR 4100.1, NASA Materials Inventory Management Manual

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P.4 CANCELLATION

270-WI-4520.2.1H Receiving Project Parts

P.5 TOOLS, EQUIPMENT, AND MATERIALS

- a. Desktop computer capable of interfacing with the Advanced Materials Management System (AMMS), GSFC-20-2 Receive Inspection and Test Form (RITF) and other applicable software programs.
- b. Electrostatic Discharge Sensitive (ESD) workstation
- c. Printer

P.6 SAFETY PRECAUTIONS AND WARNINGS

- a. This receiving and inspection function is conducted in a working warehouse.
- b. Material processed can be bulky and heavy. Particular emphasis shall be placed on proper lifting techniques.
- c. Safety shoes shall be worn at all times while engaged in receiving and inspection functions. Safety shoes suitable for use in an ESD environment are preferred.
- d. Electrostatic Discharge Sensitive (ESDS) material shall be inspected in the Code 270 ESD Facility, Bldg. 35 Room 375. An ESD trained Receiving Inspector shall validate the part number, stock number, quantity and condition of the material. ESDS items shall be handled and inspected in accordance with 300-PG-8730.6.

P.7 TRAINING

Certification is required in order to handle any material classified as Electrostatic Discharge Sensitive (ESDS), as guided by 300-PG-8730.6.1 GSFC Electrostatic Discharge (ESD) Control Plan

P.8 RECORDS

| Quality Record Title | Record Custodian | Retention |
|--|------------------------------------|---|
| Inspection Data Files. Includes: GSFC Form 20-4 or GSFC 11-54(copy) Shipping/Mailing Request form; 270-FORM-0068 Receiving Discrepancy Form; | Project Parts Warehouse Supervisor | NRRS 8/103 - Destroy/delete between 5 and 30 years after program/project termination. Maintain with corresponding Inspection Data Files |

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| Quality Record Title | Record Custodian | Retention |
|--|------------------|-----------|
| GSFC 20-2 RITF; AMMS generated receipt travelers | | |

* *NRRS 1441.1, NASA Records Retention Schedule*

P.9 MEASUREMENT/VERIFICATION

Performance Standards: Project Parts Receiving operations will be evaluated using performance standards contained in the Performance Requirements Summary of the Goddard Logistics Services contract.

| | |
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| Performance Standard | Project Parts receipt, inspection, and paperwork processing are completed within the acceptable number of workdays days from delivery to the GSFC Receiving Dock. Fasteners excluded. |
| Inspection Procedure | Compare dock date to deliver-to-inventory date using following criteria: less than 400 lines received have 10 days to process; 401 to 600 lines received have 12 days to process; more than 600 lines received have 15 days to process |
| Sampling Procedure | AMMS report exported to Excel spreadsheet |

In this document, a requirement is identified by “shall,” a good practice by “should,” permission by “may” or “can,” expectation by “will,” and descriptive material by “is.”

1.0 General Information

This section contains procedures applicable to the receipt and inspection of, and the accounting for, incoming material. Adherence to these procedures will ensure that shipments are correct with respect to kind, count and condition, or that appropriate corrective action has been initiated. Although purchase orders are written with general warranty clauses to cover defects in workmanship and other latent discrepancies, these procedures are intended to protect Code 279 and the Government against defective parts.

2.0 Responsibilities

2.1 Supply Branch Manager - The Code 279 Supply Operations Branch Manager at GSFC is responsible for the overall receiving and inspection activities of electrical, electronic, electromechanical parts and mechanical hardware for designated flight projects and the Project Parts Section stores stock inventory.

2.2 Receiving Inspectors/Parts Technician(s) - The Receiving Inspector(s)/Parts Technician(s) assigned to the Project Parts Section is responsible for:

- a. Inspecting and processing for delivery to stock or direct turn over Code 279 procured material.

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- b. Documenting and processing for appropriate disposition discrepant/nonconforming material.
- c. Providing specialized handling and processing of space flight hardware and ground support materials.
- d. Initiating and forwarding to the Project Parts Procurement section a 270-FORM-0068 for all nonconforming/discrepant shipments.
- e. Following Receiving Inspection Instructions and preparing a RITF when required.

3.0 Quality Control Process

The receiving/inspection operation will be evaluated by Code 273 on the effectiveness of the operation, including accurate movement from point of receipt to delivery line or stock location, and inspection of materials (including a check for quantity, comparison of part numbers, description, and a visual check for missing components or damaged material). The receiving and inspection operation will also be evaluated on whether non-conforming material is rejected and segregated, and appropriate follow-on action is initiated.

4.0 Inspection

The following instructions are applicable for the inspection of incoming project parts materials:

- a. All incoming Code 279 project support procured material, material transfers from other centers, Government agencies, or contractors, will be inspected in accordance with this work instruction.
- b. Material will be processed on a first-in/first-out basis except for high priority material.
- c. Shipment contents shall be verified with the requirements, terms and conditions of the purchase order and the RITF. This normally consists of a quantity check, comparison of part numbers, stock numbers description, and a visual check for missing items or damage. The purchase order will specify if a Certificate of Certification (C of Cs) is required for the incoming parts. The Receiving Inspector/Parts Technician shall ensure a C of C accompanies the material if items were purchased for direct turn over to a customer or that the C of C is filed if the material is being stored by Code 279.
- d. The purchase order and receipt shall be annotated to indicate the items and quantities received.
- e. A date Stamp will be placed on the back of the original packing slip to indicate date material arrived on dock.
- f. The original receipt, indicating the material has been received and accepted, along with a copy of the Packing Slip shall be forwarded to the Code 279 Accounting Office for invoice payment and filing.

5.0 Management System (MS) Material

Most incoming material for Project Parts falls under the GSFC Management System (MS), and as such must be documented with a GSFC Form 20-2, Receiving Inspection & Test Form (RITF) that is required to be part of the customer-originated procurement package. In the case of MS material received without

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a RITF, the Receiving Inspector will contact the Acquisition Specialist and request that a RITF be initiated prior to completion of the inspection process. Upon completion of the inspection process, the hard copy of the RITF will be attached to the material. As part of the RITF update, the inspector will ensure that all fields of the RITF must be completed or NA entered when information is not available. Final close out cannot predate the completion of the final RITF event. As an example, the RITF cannot be closed before Code 562 approves or disapproves the results of XRF screening. A final, independent Quality Control (QC) will be conducted prior to RITF being scanned into the SharePoint drive. The individual scanning the material will review the RITF and initial correct RITFs. Incorrect or incomplete RITFs will be returned to the Inspector for corrective action. If the customer specifies that incoming material be released without a completed inspection (e.g. “urgent release”) the RITF shall be annotated with an indication of this customer requirement and a PR or PFR shall be prepared following the procedures specified in this work instruction and as managed through the Center’s Corrective Action/Preventive Action (CAPA) Plan.

6.0 Receiving Material in the Advanced Materials Management System (AMMS)

Inspection information reflecting the identity, quantity, and condition of material shall be entered into AMMS by the Receiving Inspector.

The Inspector will determine if incoming material passes inspection using Receiving Inspection Instructions provided on the Purchase Order and the RITF. If material passes inspection, the Inspector shall process the necessary receipt transactions in AMMS in accordance with AMMS Receiving Scripts. If the inspector finds a discrepancy or nonconformance with incoming material, the material will be processed as described in section 7.0 below.

7.0 Discrepancies in Shipment and Non-Conforming Material

All Product Findings and Process Non-conformances shall be initiated, processed and dispositioned in accordance with GPR 5340.2, Documentation and Control of Process Non-conformances and Customer Complaints, and GPR 5340.4, Problem Reporting and Problem Failure Reporting. The material and its accompanying documentation will be placed in the designated reject hold. Technical advice from the requestor may be solicited to validate conformance with technical specifications. Examples are:

- a. material damage
- b. incorrect part or serial number
- c. ESDS items with broken ESD protective packaging
- d. shortages/overages
- e. items not conforming to the accompanying packing slip

The Inspector will work with the Acquisition Specialist and the customer to make every attempt to rectify discrepant incoming material. If the discrepancy cannot be resolved, the Acquisition Specialist will coordinate the return of the material to the vendor.

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8.0 Return of Material to Vendor

When the determination has been made that material is to be returned to a vendor, the Acquisition Specialist for that procurement shall contact the vendor and arrange for the return. The Receiving Inspector shall prepare the material for shipment back to the vendor and notify the Acquisition Specialist that the material is ready for shipment. If the material is being returned at Goddard's cost, the Material Coordinator and Acquisition Specialist will prepare a GSFC 20-4 or GSFC 11-54 to provide to the Transportation Branch as authorization to ship the material back to the vendor. The Inspector, Acquisition Specialist, and Material Coordinator will work together to obtain replacement parts to satisfy the customers' requirements.

9.0 Lost or Damaged Material (Surveys)

If material is damaged or lost in the process of receiving, a Survey Report (NASA Form 598) will be initiated. Reports of Survey will be initiated within five workdays after determining damage to or loss of material. The NASA Form 598 will be completed and submitted to the Code 273 Equipment Management Section within 30 days of being initiated.

10.0 Nonconformance Management

The overall Corrective Action/Preventive Action (CAPA) Lead for the activities in this work instruction is the Code 273 Supply Team Lead. The CAPA serves as the principal point of contact within ILMD responsible for the management and proper functioning of the nonconformance process in this functional area. He/she provides technical oversight and identifies nonconformance trends that may require changes to existing policies or procedures, and reports significant issues to higher management. The CAPA Lead is also responsible for reviewing and processing the Product Findings (PR/PFR), and Process Non-conformances initiated in-house or received from any source as well as directing and documenting corrective and preventive action. The primary documentation for these activities shall be created in the automated META System, which is accessed via the [GSFC MS website](#).

All Product Findings and Process Non-conformances shall be initiated, processed and dispositioned in accordance with GPR 5340.2, Documentation and Control of Process Non-conformances and Customer Complaints, and GPR 5340.4, Problem Reporting and Problem Failure Reporting.

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Appendix A – Definitions

- A.1 Certificates of Compliance (C of C): Parts documentation that includes manufacturer name, manufacturer location, date codes, date of manufacture, part number, lot number, applicable specification and name and signature of the manufacturer's authorized representative. The data reflected on a C of C may vary with product manufacturer (s).
- A.2 ESD Material: Material that is sensitive to Electrostatic Discharge. Special handling is required.
- A.3 Inspection: As a minimum, verifies the kind, count and condition of material.
- A.4 Project Parts: EEE parts or mechanical hardware that are obtained by the Code 279 Project Parts Section for distribution to projects. These parts will be used by the projects for engineering and/or flight equipment.
- A.5 Receiving Inspection Instructions: Technical guidance provided by the initiator of a procurement, included in the procurement package, recorded on the Purchase Order and in AMMS, included on the RITF and directed at Code 279 Receiving Inspectors.
- A.6- Receiving /Inspection Personnel: Individuals responsible for receipt and inspection of incoming material.

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Appendix B – Acronyms

AMMS – Advanced Materials Management System

CAPA- Corrective Action/Preventive Action

C of C – Certificates of Compliance

EEE – Electrical, Electronic, Electromechanical

ESD – Electrostatic Discharge

GSFC – Goddard Space Flight Center

MS – Management System

QC – Quality Control

RITF – Receiving Inspection and Test Form

XRF - X-ray fluorescence

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CHANGE HISTORY LOG

| Revision | Effective Date | Description of Changes |
|----------|----------------|--|
| Baseline | 1 Oct 98 | Initial Release |
| A | 1 Feb 99 | <ul style="list-style-type: none"> Adds information on Quality Records to section P4. Adds additional instructions for handling Electrostatic Sensitive (ESD) material in paragraph 5.4. Adds paragraph 8.4 describing the role of Work Order Authorizations (WOAs) and the Receiving, Inspection and Test System in the Project Parts receiving process. Adds section 8.12 on Nonconformance Reporting. |
| B | 27 Apr 99 | <ul style="list-style-type: none"> Inserted new P8 Cancellation. Renumbered P8 to P9 and P9 to P10. 9.5 ISO product received without a WOA will be inspected for kind, count, condition delivered to the end user, and an NCR written 9.12.1 Update NCR organization with correct project name and lead designation. 9.12 Add wording to indicate that all audit discrepancies will be documented with an NCR Modified numbers on Flow Diagram in P10 Miscellaneous editorial changes to improve clarity |
| C | 1 June 99 | Modified P4 to identify appropriate Record Retention Schedule. |
| D | 13 Aug 99 | <ul style="list-style-type: none"> Modified P4 to identify Sup 8 as Quality Record to record minor non-conformances Modified 9.12 to provide for both major and minor non-conformances. |
| E | 10 Feb 00 | <ul style="list-style-type: none"> Added tables to reflect performance metrics and performance standards. |

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CHANGE HISTORY LOG *Continued*

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| E | | <ul style="list-style-type: none"> Changed the web site for the automated NCR/CAS system to http://ncr.gsfc.nasa.gov. Modified P5d. to change ESDS items will be handled and inspected in accordance with NASA-STD 8739.7. Modified 9.5 to change procedures for material received without a WOA. Modified 9.9 to clarify wording about receipt of material in AMMS and RITS |
| F | 7 Feb 05 | <ul style="list-style-type: none"> Changed to most recent Work Instruction Format 9.4 – Added instructions concerning Certificates of Conformance Section 1.2 Receiving Inspector Responsibilities – deleted resolve discrepant shipments and timeline and added Initiate and forward to the Project Parts Procurement function, Form 270-FORM-0068 for all nonconforming shipments. Section P.9 Metrics – Added the Standard Metric table and filled in according to Receiving Project Parts Operations. Added to Section 1.4. Inspection “g” – Certificates of Certification (C of Cs) are needed for all flight-qualified parts, and for some engineering parts if specified on the Purchase Order. The Receiving Inspector shall ensure a C of C accompanies the shipment. As directed during the FY04 Center Rules Review, the Responsible Office modified this document to remove requirements that were no longer needed and to clearly distinguish requirements from supporting information. Administrative changes were made throughout to correct responsible organization names and codes, and to re-title Goddard Procedures and Guidelines (GPG) to Goddard Procedural Requirements (GPR) and NASA Procedures and Guidelines (NPG) to NASA Procedural Requirements (NPR) Updated the Nonconformance Section. |
| F | 14 May 06 | <ul style="list-style-type: none"> Administratively updated to reflect a change in the owning organization code from 230 to 270. |
| G | 16 Nov 09 | <ul style="list-style-type: none"> Changed all QMS references to MS Replaced all NASA-STD 8739.7 references with GSFC-WM-001 Added in Receiving Inspection metric as performance requirement General minor modifications to bring document in alignment with current processes |

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| H | 21 Aug 14 | <ul style="list-style-type: none"> Added the requirement that Inspectors complete all fields on a WOA or enter NA where information is not available Added a final and independent QC review prior to scanning WOA into the Public drive |
| I | 8 Mar 16 | <ul style="list-style-type: none"> P3 Removed GSFC-WM-001, Workmanship Manual for Electrostatic Discharge Control Added GPR 4520.1, Counterfeit Parts Avoidance Plan P3 GPR 1710.1, Corrective And Preventive Action cancelled P3 Added 300-PG-8730.6.1 GSFC Electrostatic Discharge (ESD) Control Plan P3 Changed name of GPR 5340.2, to Documentation and Control of Process Non-conformances and Customer Complaints P6 D Changed Building number to Bldg. 35 Room 375 P6 Deleted GSFC-WM-001 and replaced with 300-PG-8730.6 P3 Added GSFC-20-2 Receive Inspection and Test Form (RITIF P7 Removed GSFC-WM-001, Workmanship Manual for Electrostatic Discharge Control. P8 Replaced WOA with GSFC 20-2 Sec 10-Deleted entire Non Conformance section and replaced with updated CAPA process P9 Removed Performance Metric and replaced with the Performance Standards 2.2 Replaced WOA with RITF 5.0 Replaced WOA with RITF 5.0 Replaced NCR with PR/PFR 6.0 Deleted reference to Receiving Inspectors Reject Log |

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